

UNITED STATES DEPARTMENT OF THE INTERIOR
MINERALS MANAGEMENT SERVICE
GULF OF MEXICO REGION
ACCIDENT INVESTIGATION REPORT

1. OCCURRED

DATE: **20-AUG-2006** TIME: **0330** HOURS

2. OPERATOR: **Dominion Exploration & Production**

REPRESENTATIVE: **John Price**

TELEPHONE: **(504) 593-7744**

CONTRACTOR: **Diamond Offshore Drilling, Inc**

REPRESENTATIVE: **Ronald Gerald - OIM**

TELEPHONE: **(713) 378-7832**

3. OPERATOR/CONTRACTOR REPRESENTATIVE/SUPERVISOR
ON SITE AT TIME OF INCIDENT:

4. LEASE: **G27127**

AREA: **SS** LATITUDE:

BLOCK: **138** LONGITUDE:

5. PLATFORM:

RIG NAME: **DIAMOND OCEAN TITAN**

6. ACTIVITY:

- EXPLORATION(POE)
 DEVELOPMENT/PRODUCTION
(DOCD/POD)

7. TYPE:

- HISTORIC INJURY
- REQUIRED EVACUATION
 - LTA (1-3 days)
 - LTA (>3 days)
 - RW/JT (1-3 days)
 - RW/JT (>3 days)
 - Other Injury

- FATALITY
 POLLUTION
 FIRE
 EXPLOSION

- LWC HISTORIC BLOWOUT
 UNDERGROUND
 SURFACE
 DEVERTER
 SURFACE EQUIPMENT FAILURE OR PROCEDURES

COLLISION HISTORIC >\$25K <=\$25K

- STRUCTURAL DAMAGE
- CRANE
- OTHER LIFTING DEVICE
- DAMAGED/DISABLED SAFETY SYS.
- INCIDENT >\$25K
- H2S/15MIN./20PPM
- REQUIRED MUSTER
- SHUTDOWN FROM GAS RELEASE
- OTHER

6. OPERATION:

- PRODUCTION
- DRILLING
- WORKOVER
- COMPLETION
- HELICOPTER
- MOTOR VESSEL
- PIPELINE SEGMENT NO.
- OTHER

8. CAUSE:

- EQUIPMENT FAILURE
- HUMAN ERROR
- EXTERNAL DAMAGE
- SLIP/TRIP/FALL
- WEATHER RELATED
- LEAK
- UPSET H2O TREATING
- OVERBOARD DRILLING FLUID
- OTHER Plugged off flow line

9. WATER DEPTH: **62** FT.

10. DISTANCE FROM SHORE: **45** MI.

11. WIND DIRECTION: **SE**
SPEED: **5** M.P.H.

12. CURRENT DIRECTION: **SE**
SPEED: **4** M.P.H.

13. SEA STATE: **1** FT.

17. DESCRIBE IN SEQUENCE HOW ACCIDENT HAPPENED:

On Sunday August 20, 2006 at 0330 hrs the Diamond Ocean Titan Jack-up rig was drilling in Ship Shoal Block 138 and spilled 22 barrels (bbls) of diesel oil based mud. The spill was reported to the MMS, NRC and Coast Guard.

The incident occurred while drilling at a rate of penetration (ROP) of 300 feet per hour (fph) and pumping at a rate of 700 gallons per minute (gpm), a spacer sweep came up the hole and unloaded a large amount of cuttings into the 16" flowline, which became partially plugged. The shaker hand noticed a reduced rate of returns and immediately notified the driller who shut down drilling to investigate the problem. He found that with the flowline partially plugged some of the flow diverted from the gumbo box through a 6" overflow line that empties into the trip tank. With a flow rate of 700 gpm the 6" line was not able to handle all the over flow and the gumbo box backed up. The oil based mud overflowed into the catch basin which is below the gumbo box and ultimately the 22 bbls of OBM (71% oil or 15.6 bbls) spilled into the Gulf. The motor vessel Claire Callais immediately circled the rig looking for any sheening but it was too dark and none was seen. The area was checked again at daylight and no sheening was observed. Drilling was shut down and the flowline, the gumbo box and catch tank were cleared of all mud before normal drilling resumed.

18. LIST THE PROBABLE CAUSE(S) OF ACCIDENT:

The combination of the fast 300 fph ROP and the high 700 gpm pumping rate overloaded the cutting return system causing it to overflow when a spacer sweep came up the hole. The 16 inch flowline and the 6 inch overflow line did not have the capacity necessary to handle the heavy cutting returns when the spacer sweep reached the gumbo box.

19. LIST THE CONTRIBUTING CAUSE(S) OF ACCIDENT:

There was no communication equipment available for the shaker hand to quickly let the driller know to shut down pumping on the wellbore when plugging occurred. So the shaker hand could not inform the driller quickly enough to prevent the spill during a spacer sweep returned at the gumbo box.

20. LIST THE ADDITIONAL INFORMATION:

The returns from the hole came up the bell nipple and traveled to the gumbo box before continuing down the flowline. A 6" line is located at the top of the gumbo box so that if it fills up for some reason then the flow gets diverted to the trip tank. The mud logger reported a total of 35 bbls were lost during the overflow. The 6 inch flowline sent 11 bbls to the trip tank and the catch basin below the gumbo box retained 2 bbls. This calculates to a total of 22 bbls spilled into the Gulf. The Oil/Water ratio was 71% so actual diesel spilled equated to 15.6 bbls.

To improve the system and prevent an additional spills Diamond plans to install communication equipment at the gumbo box so that the driller can be informed quickly if the return flowline starts to plug so he can shut in the pumping on the wellbore before the gumbo box overflows. Also install a level indicator on the gumbo box that will alarm on the drillers console if the gumbo box reaches a high level due to being overloaded during the return of a spacer sweep.

21. PROPERTY DAMAGED:

None

NATURE OF DAMAGE:

None

ESTIMATED AMOUNT (TOTAL):

\$

22. RECOMMENDATIONS TO PREVENT RECURRENCE NARRATIVE:

Due to the nature of this incident, the Houma District has no recommendations to the Regional Office.

23. POSSIBLE OCS VIOLATIONS RELATED TO ACCIDENT: **NO**

24. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE:

None

25. DATE OF ONSITE INVESTIGATION:

20-AUG-2006

26. ONSITE TEAM MEMBERS:

**Kelly Bouzigard / Jerry Freeman /
John McCarroll /**

29. ACCIDENT INVESTIGATION

PANEL FORMED: **NO**

OCS REPORT:

30. DISTRICT SUPERVISOR:

FPausina for MSaucier

APPROVED

DATE: **23-OCT-2006**

